CLAIMS

1. A base station apparatus comprising:

a scheduling section that allocates a communicating terminal to transmit packet data based on reception power of a dedicated channel, reception quality of the dedicated channel, and first transmission power as transmission power of the dedicated channel of each communicating terminal;

a transmission power deciding section that decides transmission power of packet data transmitted using a channel for packet data transmission from the communicating terminal based on the reception power, the reception quality and the first transmission power;

a transmission parameter deciding section that decides a transmission parameter relating to a transmission rate of the packet data based on the reception power, the reception quality and the first transmission power; and

a notifying section that notifies a communicating terminal allocated by said scheduling section of transmission power command information that instructs transmission of the packet data using the decided transmission power and information of the transmission parameter.

2. The base station apparatus according to claim 1,

wherein the transmission power command information comprises information indicating transmission power of the packet data.

3. The base station apparatus according to claim 1, wherein the transmission power command information comprises information indicating an offset value to transmission power of the dedicated channel.

4. The base station apparatus according to claim 1, further comprising a transmission power estimating section that estimates second transmission power as transmission power of the dedicated channel at the time of transmitting packet data in a communicating terminal using reception power,

wherein said transmission power deciding section calculates transmission power usable to transmit packet data within a range of a value obtained by subtracting the second transmission power from a transmission power upper limit value of the communicating terminal; and

wherein said transmission parameter deciding section decides such a transmission parameter by which the packet data can be received with predetermined quality using transmission power calculated by said transmission power deciding section.

5. The base station apparatus according to claim 1,

further comprising a demodulation section that receives packet data transmitted to include information of the transmission parameter in a communicating terminal to demodulate information of the transmission parameter as a pilot signal.

6. A communication terminal apparatus comprising:

a transmission power setting section that sets transmission power of packet data transmitted by a channel for packet data transmission based on transmission power command information indicating transmission power instructed by a communicating terminal extracted from received data;

a transmission parameter deciding section that sets a transmission parameter based on information of a transmission parameter relating to a transmission rate of packet data extracted from received data; and

a transmitting section that transmits the packet data using the set transmission power and transmission parameter.

7. The communication terminal apparatus according to claim 6, further comprising:

a transmitting section that transmits information of transmission power of the dedicated channel; and

a storing section that is the same as that of a communicating terminal to store a relationship between

the transmission parameter and an offset value of transmission power of the dedicated channel,

wherein said transmission power deciding section sets transmission power obtained by adding the offset value corresponding to the transmission parameter stored in said storing section to transmission power of the dedicated channel as transmission power of the packet data using information of the transmission parameter.

8. The communication terminal apparatus according to claim 6,

wherein said transmission power setting section sets transmission power of the packet data to avoid exceeding an upper limit value when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel exceeds the upper limit value; and

wherein said transmission parameter deciding section sets such a transmission parameter by which the communicating terminal can receive the packet data with a predetermined quality when the packet data is transmitted using transmission power set by said transmission power setting section.

9. The communication terminal apparatus according to claim 6, further comprising:

a transmission parameter information inserting section that inserts the transmission parameter information into packet data; and

a transmission control section that controls packet data to prevent being transmitted when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel exceeds an upper limit value and controls packet data to be transmitted using the inserted transmission parameter information as a pilot signal when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel is below the upper limit value.

10. The communication terminal apparatus according to claim 6,

wherein said transmission power setting section sets transmission power being larger than transmission power instructed by said transmission power command information to avoid exceeding an upper limit value when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel is below the upper limit value; and

wherein said transmission parameter deciding

section sets such a transmission parameter by which the communicating terminal can receive the packet data with a predetermined quality when the packet data is transmitted using transmission power set by said transmission power setting section.

11. A transmission power setting method comprising the steps of:

in a base station apparatus,

allocating a communicating terminal to which packet data is transmitted based on reception power of a dedicated channel, reception quality of the dedicated channel, and a first transmission power of the dedicated channel from each communication terminal apparatus;

deciding transmission power of packet data transmitted using a channel for packet data transmission from the communication terminal apparatus based on the reception power, the reception quality and the first transmission power; and

notifying an allocated communication terminal apparatus of transmission power command information instructing that the packet data is transmitted using the decided transmission power, and

in a communication terminal apparatus,

setting transmission power of packet data transmitted by a channel for packet data transmission based on the transmission power command information

extracted from received data.